

# PEAVEY ELECTRONICS

## 112 Criterion™ II

### Two-Way Commercial Sound System

#### SPECIFICATIONS

**Frequency Response, 1 Meter on Axis, Swept Sine Averaged Across Operating Bandwidth in Anechoic Environment:**

70 Hz - 20 kHz  $\pm 3$  dB

**Low Frequency Limit (-3 dB Point):**

70 Hz

**Useable Low Frequency Limit (-10 dB Point):**

60 Hz

**Power Handling:**

150 watts continuous (34.6 volts RMS)

**Sound Pressure Level, 1 Watt at 1 Meter, Swept Sine Input in Anechoic Environment:**

99 dB

**Maximum Sound Pressure Level:**

121 dB

**Radiation Angle Measured at -6 dB Point of Polar Response of Swept Sine Input:**

Horizontal Plane:	Vertical Plane:
<b>250-500 Hz</b>	<b>250-500 Hz</b>
200° $\pm 70^\circ$	200° $\pm 70^\circ$
<b>500-10,000 Hz</b>	<b>500-10,000 Hz</b>
80° $\pm 40^\circ$	60° $\pm 20^\circ$
<b>10,000-16,000 Hz</b>	<b>10,000-16,000 Hz</b>
60° $\pm 20^\circ$	45° $\pm 15^\circ$

**Directivity Factor Q, 500 Hz—16,000 Hz Median:**

8.3 (+15.8, -5.4)

**Directivity Index D<sub>i</sub>, 500—16,000 Hz Median:**

9.2 dB (+4.8 dB, -4.6 dB)

**Transducer Complement:**

- One 12" premium low frequency Scorpion® speaker
- One constant directivity dual horn tweeter

**Box Tuning Frequency (F<sub>box</sub>):**

56 Hz

**Impedance (Nominal):**

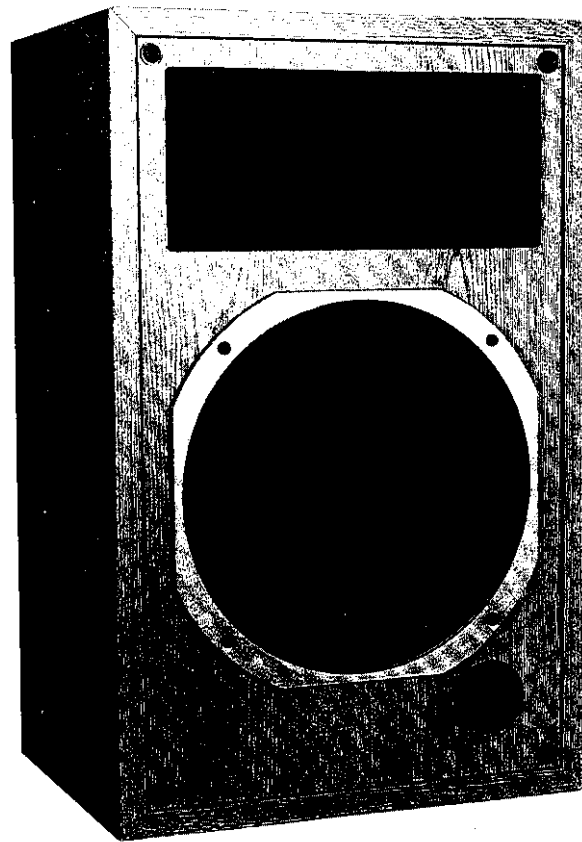
8 ohms

**Impedance (Minimal):**

6.3 ohms

**Input Connections:**

Two push terminals



**Enclosure Finish:**

Covered with oak grained vinyl

**Dimensions:**

14½" (36.8 cm) W x 22<sup>7</sup>/<sub>8</sub>" (58.1 cm) H x 11¼" (28.6 cm) D

**Net Weight:**

37 lbs. (16.8 kg)

**DESCRIPTION**

The 112 Criterion™ II is a full-range two-way enclosure designed for public address and sound reinforcement. The cabinet is constructed of ¾" laminated

wood covered with oak grained vinyl. A black opaque grille is easily removed. The two-way system is comprised of a high-power, 12-inch, low frequency Scorpion® speaker and a multi-flare, constant directivity horn supplying the mid and high frequencies.



**DIRECTIVITY**

Beamwidth and directivity factors are derived from polar plots (see Figure 5) which are measured in a whole space anechoic environment.

These are specifications which provide a reference to the coverage characteristics of the enclosure. These parameters provide insight for proper speaker placement and installation in the chosen environment. The blending of the components exhibits a desirable beamwidth and directivity factor (Figures 3 and 4) suitable for all permanent installations.

**FREQUENCY RESPONSE**

The frequency response of the 112 Criterion™ II is measured in an anechoic environment at a distance of one meter while using a 2.82 volt logarithmically-swept sine input. This measurement is useful in determining the accuracy in which the enclosure reproduces the input signal. The combination of the low frequency loudspeaker and the constant directivity horn results in a flat response as shown in Figure 1.

**POWER HANDLING**

There are many different approaches to power handling ratings, the most common being EIA standard RS-426A. The derived shape of this test spectrum was an attempt to stimulate the spectral content of contemporary music. Although it does resemble contemporary music, EIA-RS-426A does not contain the same levels of very low frequency material found in live music situations. Very high levels of low frequency material produce distortion and, ultimately, device failure. The presence of this low frequency material will therefore yield lower device ratings than produced by EIA Standard RS-426A. Although the Peavey ratings are lower than those produced by the EIA test spectrum, they are far more reliable and will have a direct correlation to real world situations.

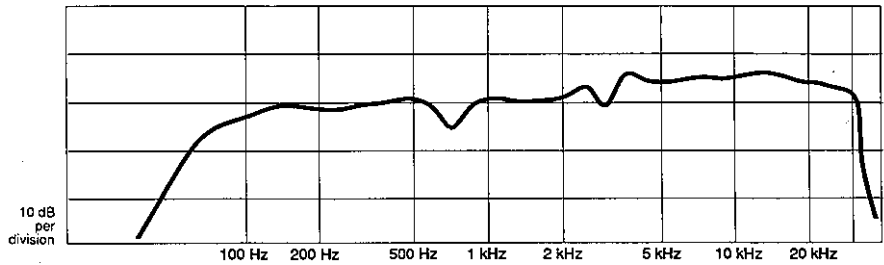


Figure 1. FREQUENCY RESPONSE

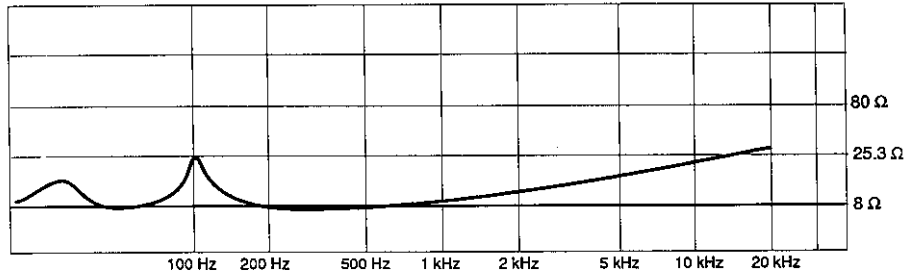


Figure 2. IMPEDANCE

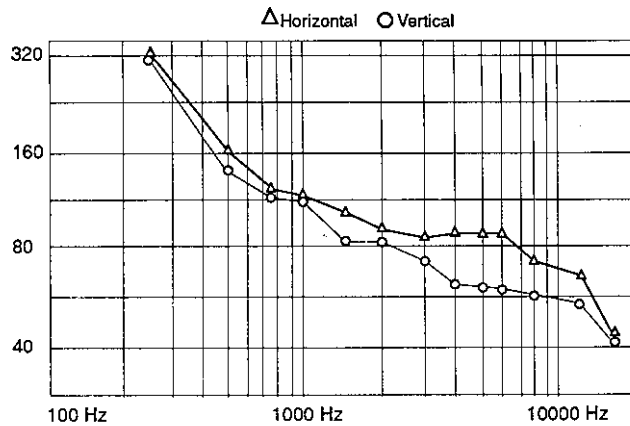


Figure 3. BEAMWIDTH VS. FREQUENCY

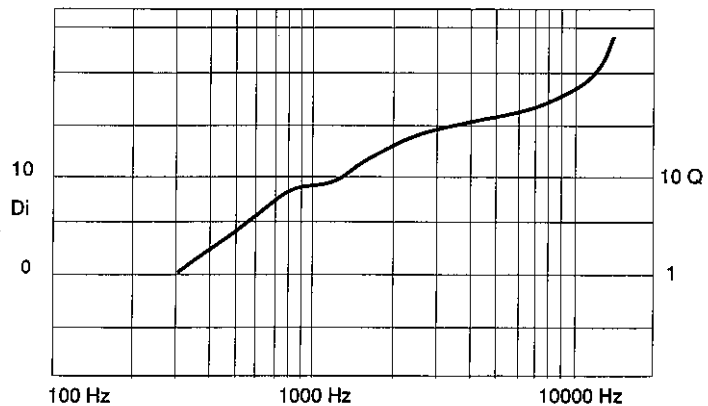
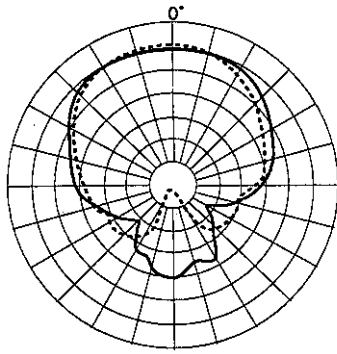


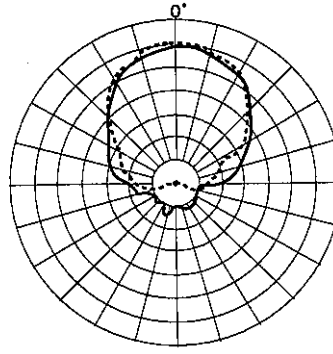
Figure 4. DIRECTIVITY

5 dB per Division

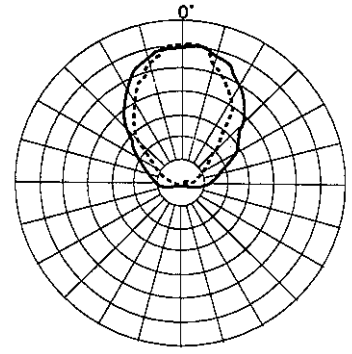


— 500 Hz  
- - - 1 kHz

### HORIZONTAL



— 2 kHz  
- - - 4 kHz



— 8 kHz  
- - - 16 kHz

5 dB per Division

### VERTICAL

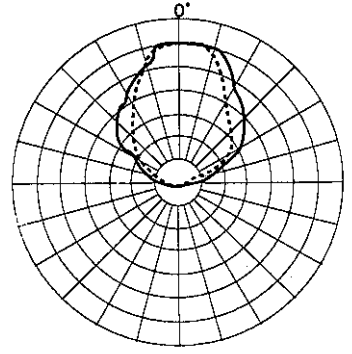
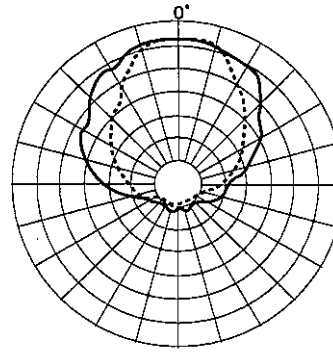
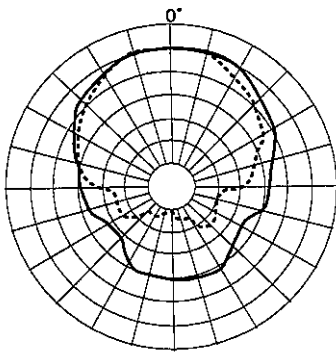
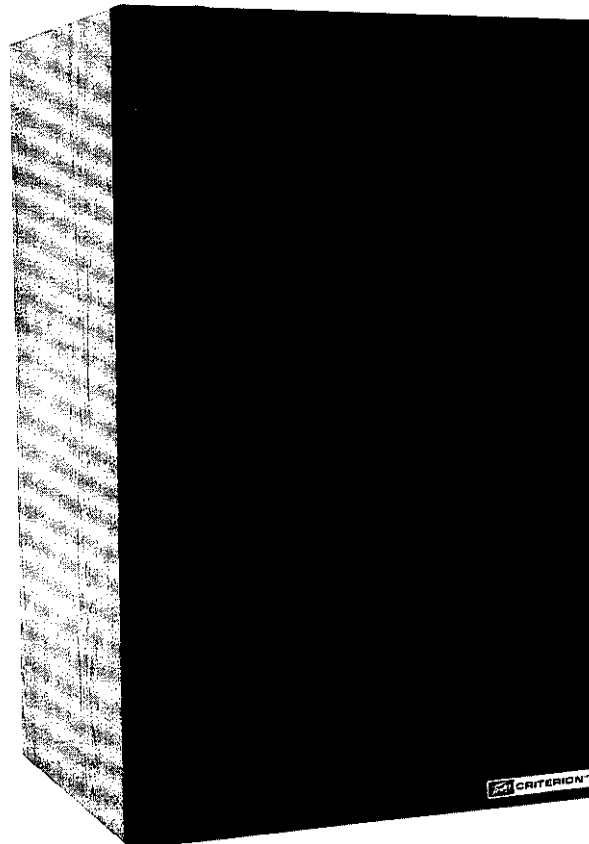


Figure 5. POLAR PATTERNS



CRITERION

## **ARCHITECTURAL & ENGINEERING SPECIFICATIONS**

The loudspeaker system shall have an operating bandwidth of 70 Hz to 20 kHz. The output level shall be 99 dB when measured at a distance of one meter with an input of one watt. The nominal impedance shall be 8 ohms. The continuous power handling shall be 150 watts, with a minimum amplifier headroom of 3 dB. The nominal radiation geometry shall be 80 degrees in the horizontal plane and 40 in the vertical plane. The outside dimension shall be 14½ inches wide by 22<sup>7</sup>/<sub>8</sub> inches high by 11¼ inches deep. The weight shall be 37 lbs. The loudspeaker system shall be a Peavey 112 Criterion™ II.

### **NOTE**

**This enclosure is not designed to be hung or suspended. Extensive modifications would be required and thus not recommended.**

### **ONE YEAR LIMITED WARRANTY —**

**NOTE:** For details, refer to the warranty statement. Copies of this statement may be obtained by contacting Peavey Electronics Corporation, P. O. Box 2898, Meridian, Mississippi 39302-2898.



Features and specifications subject to change without notice.

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